

**SAMPLING AND ANALYSIS PLAN
FOR THE
22ND STREET STATION SITE,
PITNEY COURT SITE,
AND HOUGH PLACE STATION SITE
CHICAGO, COOK COUNTY, ILLINOIS**

Prepared for
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Prepared by
WESTON SOLUTIONS, INC.
Region V Superfund Technical Assessment and Response Team

June 1, 2007

Approved by: _____ Date: _____
U.S. EPA Region V
On-Scene Coordinator

Project Dates of Sampling:	June 2007 through December 2008
CERCLA Site/Spill Identifier No.:	ILD982074767 (22 nd Street)
Contractor Organization:	Weston Solutions, Inc.
Contract Name:	START III
Contract No.:	EP-S5-06-04
Technical Direction Document No.:	S05-0704-012 (Hough Place) S05-0704-013 (Pitney Court) S05-0704-014 (22 nd Street)
Document Control No.:	191-2A-AAPV 192-2A-AAPW 193-2A-AAPX

ACRONYM LIST

°C	Degrees Celsius
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
COC	Chain of Custody
HCl	Hydrochloric Acid
HNO ₃	Nitric Acid
IAC	Illinois Administrative Code
IEPA	Illinois Environmental Protection Agency
MGP	Manufactured Gas Plant
MS/MSD	Matrix Spike/ Matrix Spike Duplicate
No.	Number
OSC	On-Scene Coordinator
Oz	Ounce
PAH	Polynuclear Aromatic Hydrocarbon
PEL	Permissible Exposure Limit
PPE	Personal Protective Equipment
PRP	Potentially Responsible Party
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
SAP	Sampling and Analysis Plan
SIM	Selective Ion Monitoring
SOP	Standard Operating Procedure
SPLP	Synthetic Precipitation Leaching Procedure
START	Superfund Technical Assessment and Response Team
SVOC	Semivolatile Organic Compound
TAL	Target Analyte List
TACO	Tiered Approach to Corrective Action Objectives
TCL	Target Compound List
VOC	Volatile Organic Compound
U.S. EPA	United States Environmental Protection Agency
WESTON	Weston Solutions, Inc.

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1.0 Introduction

This Sampling and Analysis Plan (SAP) identifies the data collection activities and associated quality assurance/quality control (QA/QC) measures specific to the 22nd Street Station Site, Pitney Court Site, and Hough Place Station Site (referred to collectively as the Peoples Gas Sites) located in Chicago, Cook County, Illinois. All data will be generated in accordance with the quality requirements described in the Weston Solutions, Inc. (WESTON) *Superfund Technical Assessment and Response Team (START) III Generic QAPP*, dated June 2006. The purpose of this SAP is to describe site-specific tasks that will be performed in support of the stated objectives. The SAP will reference back to the QAPP for generic tasks common to all data collection activities including routine procedures for sampling and analysis, sample documentation, equipment decontamination, sample handling, data management, data assessment and data review. Additional site-specific procedures and/or modifications to procedures described in the *START III Generic QAPP* are described in the following SAP elements.

This SAP is prepared, reviewed, and approved in accordance with the procedures detailed in the *START III Generic QAPP*. Any deviations or modifications to the approved SAP will be documented using **Table 1: SAP Revision Form**.

2.0 Project Management and SAP Distribution and Project Team Member List

Management of the Site will be as documented in the *START III Generic QAPP*. Refer to the *START III Generic QAPP* for an organizational chart, communication pathways, personnel responsibilities and qualifications, and special personnel training requirements.

The following personnel will be involved in planning and/or technical activities performed for this data collection activity. Each will receive a copy of the approved SAP. A copy of the SAP will also be retained in the Site file.

Personnel	Title	Organization	Phone Number	Email
Thomas Cook	OSC	U.S. EPA	312-802-0753	cook.tom@epa.gov
Sarah Meyer	Project Manager	START	312-424-3303	s.meyer@westonsolutions.com
Lisa Graczyk	Assistant. Project Manager	START	312-424-3339	lgraczyk@dynamac.com
Marcella Bondie Keenan	Field Team Member	START	312-356-5400	mbondie@envdesigni.com
Tonya Balla	Health and Safety	START	847-918-4094	t.balla@westonsolutions.com
Pamela Bayles	QA Reviewer	START	847-918-4030	pamela.bayles@westonsolutions.com

NOTES:

OSC – On-Scene Coordinator

QA – Quality Assurance

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START – Superfund Technical Assessment and Response Team
U.S. EPA – United States Environmental Protection Agency

3.0 Planning and Problem Definition

3.1 Problem Definition

The three Peoples Gas Sites (sites) are all former manufactured gas plant (MGP) sites that were owned by Peoples Gas at one time. The three Peoples Gas sites are within one mile or less of each other. All three sites are currently being remediated by the potentially responsible party (PRP). Remediation consists of excavation and disposal of contaminated soils. Excavation depths range from 3 feet to 24 feet below ground surface. Other site activities by the PRP include daily air monitoring, daily air sampling, confirmation soil sampling, water treatment and discharge at the 22nd Street Station site, and waste water disposal. The PRP contractor remediating the sites is Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) along with their various subcontractors. START is to perform PRP oversight during the removal activities at the sites. As part of the removal activities, START will collect confirmation samples of soil and water to confirm that the PRP cleanup objectives are being met.

Further site history information about each site is listed below.

3.2 Site History and Background

The 22nd Street Station Site is located at 2200 South Racine, Chicago, Illinois (Figure 3-1) and operated as an MGP facility from approximately 1862 to 1958. The entire site is approximately 8.9 acres in size; Commonwealth Edison (ComEd) occupies the northern 7.2 acres and Midwest Generation occupies the southern 1.7 acres. The ComEd property is the portion currently being remediated. Remediation at the 22nd Street Station Site is expected to occur through December 2008.

The Pitney Court Site is located at 3052 Pitney Court, Chicago, Illinois (Figure 3-1) and operated as an MGP facility from approximately 1897 to 1921. The facility was dismantled in 1938. Between 1952 and 2005, Paschens Contractors and Bonded Municipal Corporation owned the site. Peoples Gas re-purchased the Pitney Court Site in July 2005. Remediation at the Pitney Court Site is expected to occur through December 2007.

The Hough Place Station Site is located at 2500 Corbett, Chicago, Illinois (Figure 3-1) and operated as an MGP facility from approximately 1886 to 1934. Since approximately 1978, the Hough Place Station Site has been owned and operated by Crowley's for boat storage, repair, and sales. The owner relocated his boat operation in September 2005, and the Hough Place Station Site is now mostly vacant. Remediation at the Hough Place Station Site is expected to occur through December 2007.

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3.3 Contaminants of Concern/Target Analytes

The contaminants of concern at each of the three Peoples Gas Sites are as follows. For the 22nd Street Station Site, the soil contaminants of concern are:

- Benzene, toluene, ethylbenzene, and xylenes (BTEX);
- Polynuclear aromatic hydrocarbons (PAH);
- Synthetic precipitation leaching procedure (SPLP) lead, manganese, and selenium ;
- Carbon disulfide [a volatile organic compound (VOC)];
- 2-Methylnaphthalene and 4-chloroaniline [semivolatile organic compounds (SVOC)]; and
- Lead, manganese, and selenium.

The contaminants of concern for the water being discharged to the sewer at the 22nd Street Station Site are:

- VOCs;
- PAHs; and
- Metals.

For the Pitney Court Site, the soil contaminants of concern are:

- BTEX;
- PAHs;
- SPLP lead, chromium, and selenium; and
- Carbazole and 2-methylnaphthalene (SVOCs),

For the Hough Place Station Site, the soil contaminants of concern are:

- BTEX;
- PAHs; and
- SPLP lead, chromium, and selenium

Note that water generated at the Pitney Court and Hough Place Station Sites are not to be sampled. All water generated during site operations at these two sites are being disposed at a disposal facility. At the 22nd Street Station Site water is being treated and discharged to a sewer. Water samples are being collected at the 22nd Street Station Site only to confirm that the water being discharged to sewers is meeting permit requirements.

4.0 Project Description and Schedule

During the on-site removal activities, it is estimated that confirmation soil sampling will be conducted twice a month (120 total samples estimated for project duration) and that water sampling will be conducted once a quarter or approximately every three months (five samples estimated for project duration). START PRP oversight activities will begin the week after the Order is signed between the U.S. EPA and the PRPs. It is expected that the Order will be signed in early June 2007. The duration of the project will be approximately 18 months. The sampling design is provided below in Section 6.0.

A commercial laboratory will be utilized for analytical services. The WESTON START member on site will provide sample coordination including laboratory coordination and sample shipment. Sample labels and chain-of-custody (COC) paperwork will be generated by START. Samples will be packaged properly by START and shipped daily for next-day delivery unless a local laboratory is procured. If a local laboratory is utilized, then START will either deliver the samples to the laboratory or arrange for a laboratory pick-up. The turn-around time for the sample data will be 48 hours for confirmation soil samples and one week for all other analyses. The samples will be reviewed and validated by a START chemist within two weeks of data receipt from the laboratory.

5.0 Project Quality Objectives

5.1 Project Objectives

The objective of collecting confirmation soil and water samples during removal of MGP-impacted soil is to confirm that contaminant concentration goals for soil cleanup and water discharge are met.

5.2 Measurement and Performance Criteria

Generic measurement and performance criteria described in the *START III Generic QAPP* will be used to ensure that data are sufficiently sensitive, precise, accurate, and representative to support site decisions.

5.3 Data Quality Objectives

Data quality objectives address requirements that include when, where, and how to collect samples, the number of samples, and the limits on tolerable error rates. These steps should periodically be revisited as new information about a problem is learned.

The soil analytical results will be compared to the PRPs cleanup objectives for each of the three Peoples Gas Sites in accordance with the Illinois Environmental Protection Agency (IEPA) Tiered

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Approach to Correction Action Objectives (TACO) [35 Illinois Administrative Code (IAC) 742]. Specifically, the 22nd Street Station Site soil analytical results will be compared to TACO Tier 1 industrial/commercial remediation objectives. The 22nd Street Station Site water analytical will be compared to the PRP's discharge permit (a copy of this will not be made available to START until the Order has been signed). The Pitney Court and Hough Place Station Sites soil analytical results will be compared to TACO Tier 1 residential remediation objectives.

6.0 Sampling Design

START will perform the sampling activities detailed in the following subsections.

6.1 Sample Collection

START will collect confirmation soil and water samples as required by the U.S. EPA at the three Peoples Gas Sites. The attachment contains copies of maps from each of the People's Gas Sites' work plans that show the areas to be excavated. START will be conducting split sampling with the PRP contractor. For the soil split sampling, START will collect the sample by mimicking the PRP's contractor's methods. START will use a disposable foil pan for collecting composite samples of excavation areas. The soil analyses will consist of those contaminants of concern listed in Section 3.3 for each site, including BTEX, PAHs, SPLP metals, total metals, VOCs, and SVOCs.

For the water sample collection at the 22nd Street Station Site, START will fill the appropriate water bottles directly from the treated water storage tank located at the 22nd Street Station Site. START will don clean, disposable sample gloves, and fill the jars from a sampling port or valve on the tank. Water samples will be analyzed for VOCs, PAHs, and metals.

The soil and water sample parameters, analytical methods, bottle requirements, preservation, and QC requirements are presented in three tables:

- **Table 2: Sampling and Analysis Summary for the 22nd Street Station Site;**
- **Table 3: Sampling and Analysis Summary for the Pitney Court Site; and**
- **Table 4: Sampling and Analysis Summary for the Hough Place Station Site.**

6.2 Sample Numbering System

All samples for analysis, including QC samples, will be given a unique sample number. The sample numbers will be recorded in the field logbook, the COC paperwork, and the shipment documents.

START will assign each sample a project sample number. The project sample number highlights the suspected contaminated area and location, and will be used for documentation purposes in field logbooks, as well as for presentation of the analytical data in memoranda and reports. The project samples will be identified using the following format:

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XX-matrix-nn-mmddyy

Where:

“XX” designates the sampling site. “22” will be used for the 22nd Street Station Site, “PC” for the Pitney Court Site, and “HP” for the Hough Place Station Site.

Matrix designates the sampling matrix. “S” will be utilized for soil samples and “W” for water samples.

nn is a sequential number designating the sample number collected that day.

mmddyy is the date.

The field duplicate samples will be identified with a “D” suffix. Trip blank samples will be designated as “TB-mmddyy”. Examples of the sample identifications for the sites are as follows:

- 22-S-01-063007: First soil sample collected at the 22nd Street Station Site on June 30, 2007
- 22-S-01-063007D: Field duplicate of first soil sample collected at the 22nd Street Station Site on June 30, 2007

6.3 Management of Investigation-Derived Wastes

For purposes of this SAP, investigation-derived wastes are defined as any byproduct of the field activities that is suspected or known to be contaminated with hazardous substances. The performance of field activities will produce spent Personal Protective Equipment (PPE). Note that disposable equipment will be used for all sample collection and therefore, no decontamination water will be generated. All waste generated during the oversight activities will be placed in trash bags and left on site in a staging area with U.S. EPA and PRP approval. If required, disposal arrangements will be executed in accordance with appropriate local, state, or federal regulations. START will refer to the U.S. EPA's *Management of Investigation-Derived Wastes During Site Inspections* (U.S. EPA, 1991) guidance on off-site disposal policies, if this action is deemed necessary.

7.0 Sampling Procedures

7.1 Sampling Standard Operating Procedures

The START team will collect samples in general accordance with the following Weston standard operating procedures (SOP):

- SOP 302 - Surface Soil Sampling;
- SOP 304 - Subsurface Soil Sampling; and
- SOP 402 – Tank Sampling

7.2 Decontamination Procedures

General decontamination procedures are described in Section B.2 of the *START III Generic QAPP*. The following standard decontamination protocols will be used:

- All disposable sampling supplies and PPE will be bagged and staged on the sites in an area specified by the U.S. EPA and PRP.

8.0 Sample Handling, Tracking, and Custody Procedures

All samples will be identified, handled, shipped, tracked, and maintained under COC, in accordance with *START III Generic QAPP* Section B.3.

9.0 Field Analytical Methods and Procedures

9.1 Field Analytical Methods and Standard Operating Procedures

Field analytical methods will not be employed during oversight activities.

9.2 Field Testing Laboratory

A field testing laboratory will not be used during oversight activities.

9.3 Screening/Confirmatory Analyses

Confirmation soil and water samples to confirm PRP analyses will be collected at the sites as described in Section 6.1 of this SAP.

10.0 Fixed Laboratory Analytical Methods and Procedures

A U.S. EPA-certified commercial laboratory will be used. The laboratory name, address, contact person, telephone number, and fax number are as follows:

First Environmental Laboratories, Inc.
1600 Shore Road, Suite D
Naperville, IL 60563
630-778-1200
Contact: Neal Cleghorn

The laboratory analytical methods and procedures are detailed in Table 2 of this SAP.

11.0 Quality Control Activities

11.1 Field Quality Control

Field QC samples will be collected and analyzed for this project at the frequency described in *START III Generic QAPP*, Table 4. The number of QC samples collected for each analytical parameter and concentration level are listed in **Table 2: Sampling and Analysis Summary**.

11.2 Analytical Quality Control

QC for analytical procedures will be performed at the frequency described in *START III Generic QAPP*, Tables 5 and 6. In addition, method-specific QC requirements will be used to ensure data quality.

11.3 Performance Evaluation Samples

Performance Evaluation Samples will not be collected during this sampling event.

12.0 Documentation, Records, and Data Management

Documentation, record keeping, and data management activities will be conducted in accordance with the *START III Generic QAPP*, Section B.10.

13.0 Quality Assurance Assessment and Corrective Actions

Field audits will be routinely conducted to ensure that the field START member is conducting all START PRP oversight activities in an appropriate manner.

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14.0 Reports to Management

Reports to management will be written and distributed in accordance with the *START III Generic QAPP*, Section C.

15.0 Steps 1, 2 and 3: Data Review Requirements and Procedures

Step 1: Data collection activities, including sample collection and data generation, will be verified in accordance with the *START III Generic QAPP*, Section D.

Step 2: Data will be validated in accordance with the *START III Generic QAPP*, Section D.
A START chemist will validate the data.

Step 3: Data will be reviewed for usability in accordance with the *START III Generic QAPP*, Section D.

Table 1
SAP Revision Form

Site: 22nd Street Station Site, Pitney Court Site, and Hough Place Station Site

OSC: Thomas Cook

TDD: S05-0704-014, S05-0704-013, and S05-0704-012

Date	Rev. No.	Proposed Change to SAP/QAPP	Reason for Change of Scope/Procedures	SAP Section Superseded	Requested By	Approved By

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Table 2
Sampling and Analysis Summary
For the 22nd Street Station Site

Site: 22nd Street Station Site, Chicago, Cook County, Illinois

OSC: Thomas Cook

TDD: S05-0704-014

Matrix	Analytical Parameter	Analytical Method (SW-846)	Containers (Numbers, Size, and Type)	Preservation Requirements	No. of Sampling Locations	No. of Field Duplicates	No. of MS/MSD Pairs	No. of VOA Trip Blanks ²	No. of Equip./ Rinsate Blanks	Total No. of Samples to Lab ³
Soil	BTEX, carbon disulfide	8260B/5035	See Note 1	See Note 1	60	3	3	0	0	63
	2-methynaphtalene, 4-chloroaniline	8270C	4-oz. glass wide-mouth	Cool to 4°C	60	3	3	0	0	63
	PAHs	8270C SIM	4-oz. glass wide-mouth	Cool to 4°C	60	3	3	0	0	63
	Lead, manganese, selenium	6010B	4-oz. glass wide-mouth	Cool to 4°C	60	3	3	0	0	63
	SPLP lead, manganese, selenium	1312 and 6010B	4-oz. glass wide-mouth jar	Cool to 4°C	60	3	3	0	0	63
Water	TCL VOCs	8260B	Two 40-milliliter glass vials with PTFE-lined septa and open-top screw caps	HCl to a pH less than 2; cool to 4°C	5	0	1	5	0	10

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Matrix	Analytical Parameter	Analytical Method (SW-846)	Containers (Numbers, Size, and Type)	Preservation Requirements	No. of Sampling Locations	No. of Field Duplicates	No. of MS/MSD Pairs	No. of VOA Trip Blanks ²	No. of Equip./Rinsate Blanks	Total No. of Samples to Lab ³
	PAHs	8270C SIM	One one-liter amber glass bottles	Cool to 4°C	5	0	1	0	0	5
	TAL Metals	6010B/7000 series	One one-liter plastic bottle	HNO ₃ to a pH less than 2; cool to 4°C	5	0	1	0	0	5

Notes:

¹ For total VOCs in soil, the sample jars and preservatives will consist of one (1) pre-weighed 40-milliter vial containing methanol preservative and two (2) pre-weighed 40-milliter vials containing sodium bisulfate preservative.

² Trip blanks are only required for VOCs in water samples.

³ Total number of samples to the laboratory does not include MS/MSD samples. However, please note that MS/MSD or spike/duplicate analysis may require additional sample volume.

°C – Degrees Celsius

BTEX – Benzene, Toluene, Ethylbenzene, and Xylenes

HCl – Hydrochloric Acid

HNO₃ – Nitric Acid

MS/MSD – Matrix Spike/Matrix Spike Duplicate

No. – Number

Oz - Ounce

PAH – Polynuclear aromatic hydrocarbon

SIM – Selective Ion Monitoring

SVOC – Semivolatile Organic Compound

TAL – Target Analyte List

TCL – Target Compound List

SPLP – Synthetic Precipitation Leaching Procedure

VOC – Volatile Organic Compound

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Table 3
Sampling and Analysis Summary
For the Pitney Court Site

Site: Pitney Court Site, Chicago, Cook County, Illinois
OSC: Thomas Cook
TDD: S05-0704-013

Matrix	Analytical Parameter	Analytical Method (SW-846)	Containers (Numbers, Size, and Type)	Preservation Requirements	No. of Sampling Locations	No. of Field Duplicates	No. of MS/MSD Pairs	No. of VOA Trip Blanks ²	No. of Equip./Rinsate Blanks	Total No. of Samples to Lab ³
Soil	BTEX	8260B/5035	See Note 1	See Note 1	30	2	2	0	0	32
	2-methynaphtalene, carbazole	8270C	4-oz. glass wide-mouth	Cool to 4°C	30	2	2	0	0	32
	PAHs	8270C SIM	4-oz. glass wide-mouth	Cool to 4°C	30	2	2	0	0	32
	SPLP chromium, lead, selenium	1312 and 6010B	4-oz. glass wide-mouth jar	Cool to 4°C	30	2	2	0	0	32

Notes:

¹ For total VOCs in soil, the sample jars and preservatives will consist of one (1) pre-weighed 40-milliter vial containing methanol preservative and two (2) pre-weighed 40-milliter vials containing sodium bisulfate preservative.

² Trip blanks are only required for VOCs in water samples.

³ Total number of samples to the laboratory does not include MS/MSD samples. However, please note that MS/MSD or spike/duplicate analysis may require additional sample volume.

°C – Degrees Celsius

BTEX – Benzene, Toluene, Ethylbenzene, and Xylenes

MS/MSD – Matrix Spike/Matrix Spike Duplicate

No. – Number

Oz - Ounce

PAH – Polynuclear aromatic hydrocarbon

SIM – Selective Ion Monitoring

SVOC – Semivolatile Organic Compound

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SPLP – Synthetic Precipitation Leaching Procedure

VOC – Volatile Organic Compound

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Table 4
Sampling and Analysis Summary
For the Hough Place Station Site

Site: Hough Place Station Site, Chicago, Cook County, Illinois

OSC: Thomas Cook

TDD: S05-0704-012

Matrix	Analytical Parameter	Analytical Method (SW-846)	Containers (Numbers, Size, and Type)	Preservation Requirements	No. of Sampling Locations	No. of Field Duplicates	No. of MS/MSD Pairs	No. of VOA Trip Blanks ²	No. of Equip./Rinsate Blanks	Total No. of Samples to Lab ³
Soil	BTEX	8260B/5035	See Note 1	See Note 1	30	2	2	0	0	32
	PAHs	8270C SIM	4-oz. glass wide-mouth jar	Cool to 4°C	30	2	2	0	0	32
	SPLP chromium, lead, selenium	1312 and 6010B	4-oz. glass wide-mouth jar	Cool to 4°C	30	2	2	0	0	32

Notes:

¹ For total VOCs in soil, the sample jars and preservatives will consist of one (1) pre-weighed 40-milliliter vial containing methanol preservative and two (2) pre-weighed 40-milliliter vials containing sodium bisulfate preservative.

² Trip blanks are only required for VOCs in water samples.

³ Total number of samples to the laboratory does not include MS/MSD samples. However, please note that MS/MSD or spike/duplicate analysis may require additional sample volume.

°C – Degrees Celsius

BTEX – Benzene, Toluene, Ethylbenzene, and Xylenes

MS/MSD – Matrix Spike/Matrix Spike Duplicate

No. – Number

Oz - Ounce

PAH – Polynuclear aromatic hydrocarbon

SIM – Selective Ion Monitoring

SVOC – Semivolatile Organic Compound

SPLP – Synthetic Precipitation Leaching Procedure

VOC – Volatile Organic Compound

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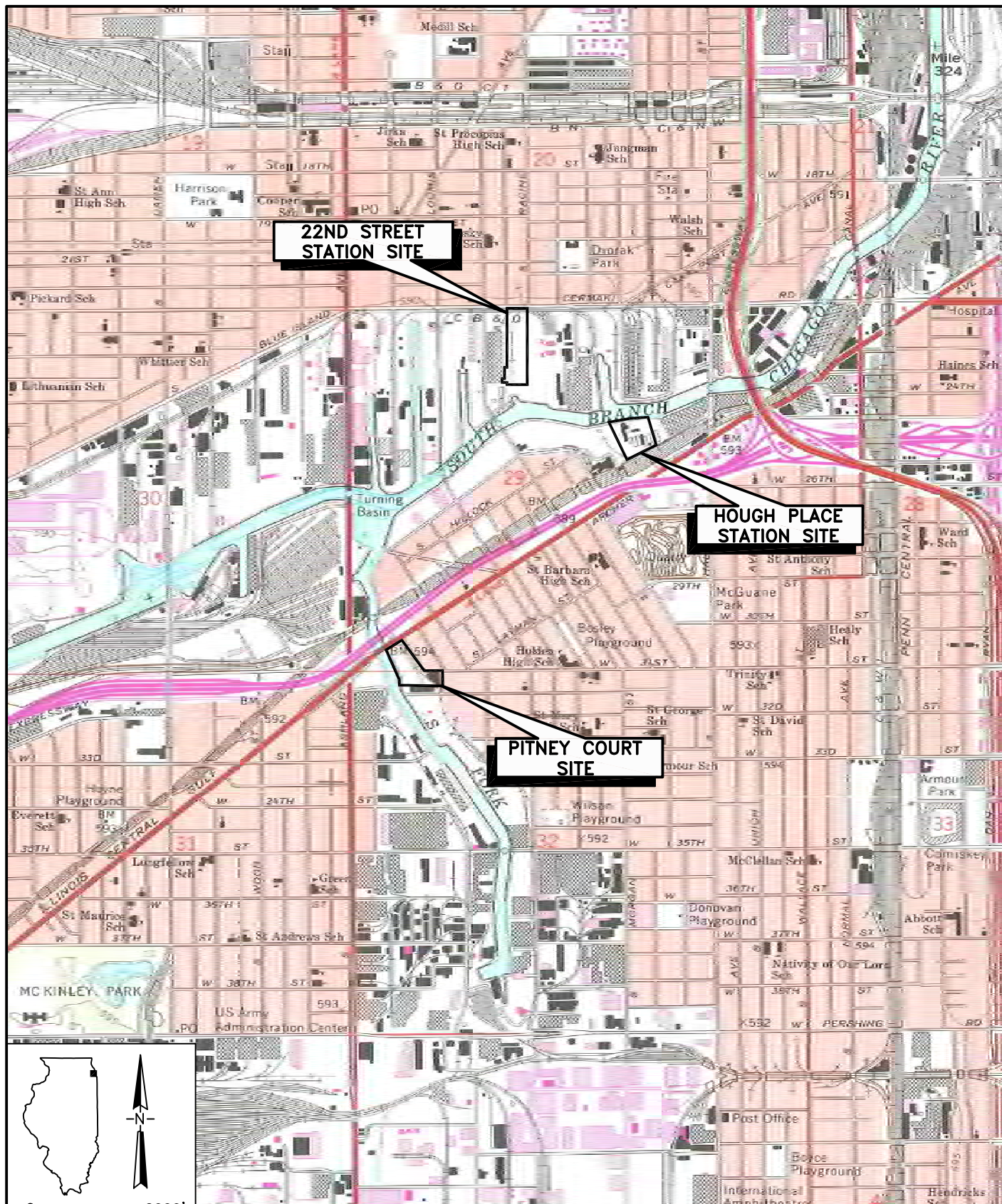
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191-2A-AAPV, 192-2A-AAPW, and 193-2A-AAPX

FIGURES



SOURCE: U.S.G.S. 7.5 MINUTE TOPOGRAPHIC MAPS.
ENGLEWOOD, ILLINOIS QUADRANGLE.

FIGURE 3-1



Prepared for:
U.S. EPA. REGION V
Contract No: EP-S5-06-04

TDD NO: S05-0704-012, S05-0704-013, S05-0704-014
DCN: 191-2A-AAPV, 192-2A-AAPW, 193-2A-AAPX



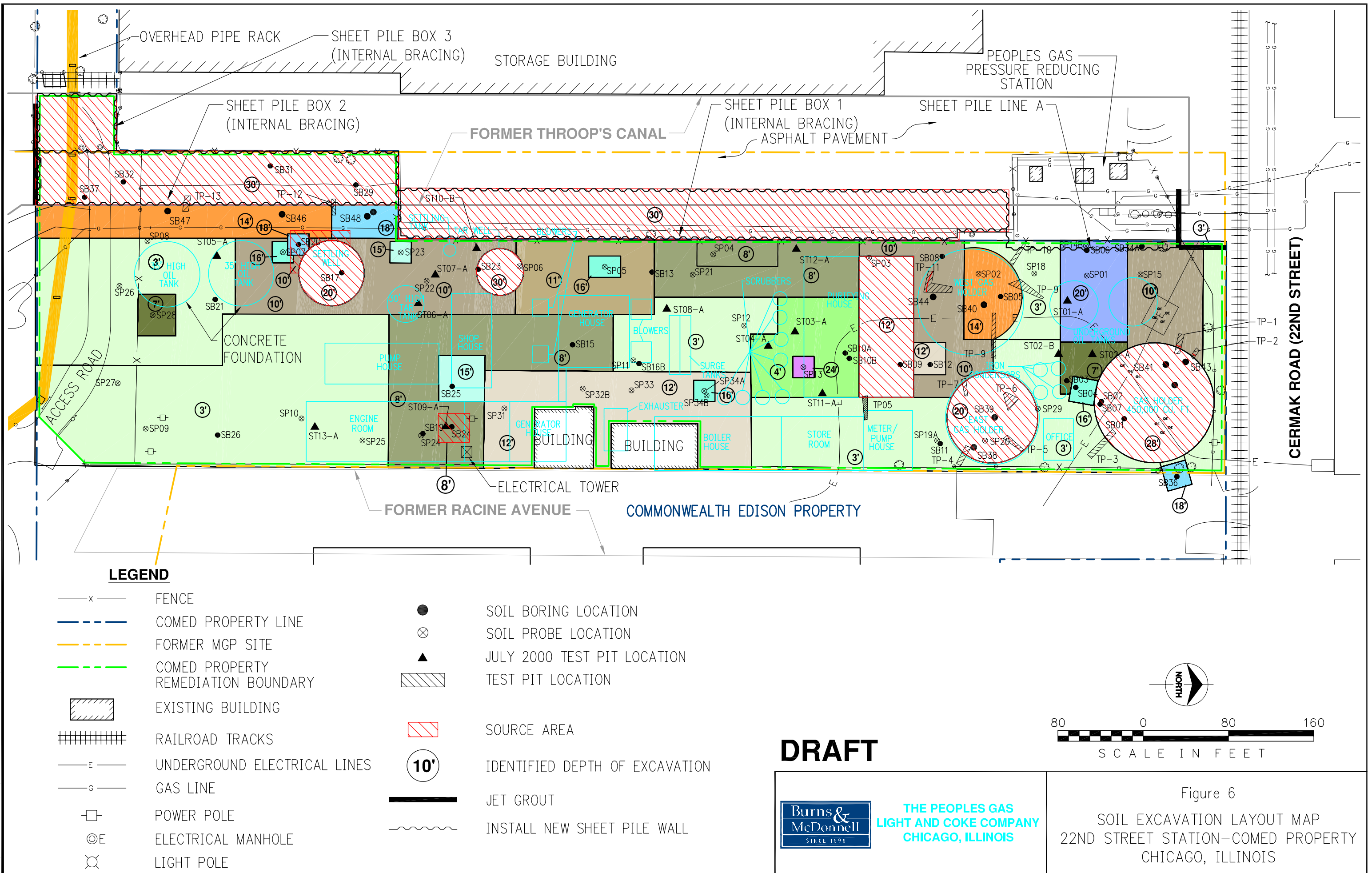
Prepared by:
WESTON SOLUTIONS, INC.
750 East Bunker Court
Vernon Hills, IL

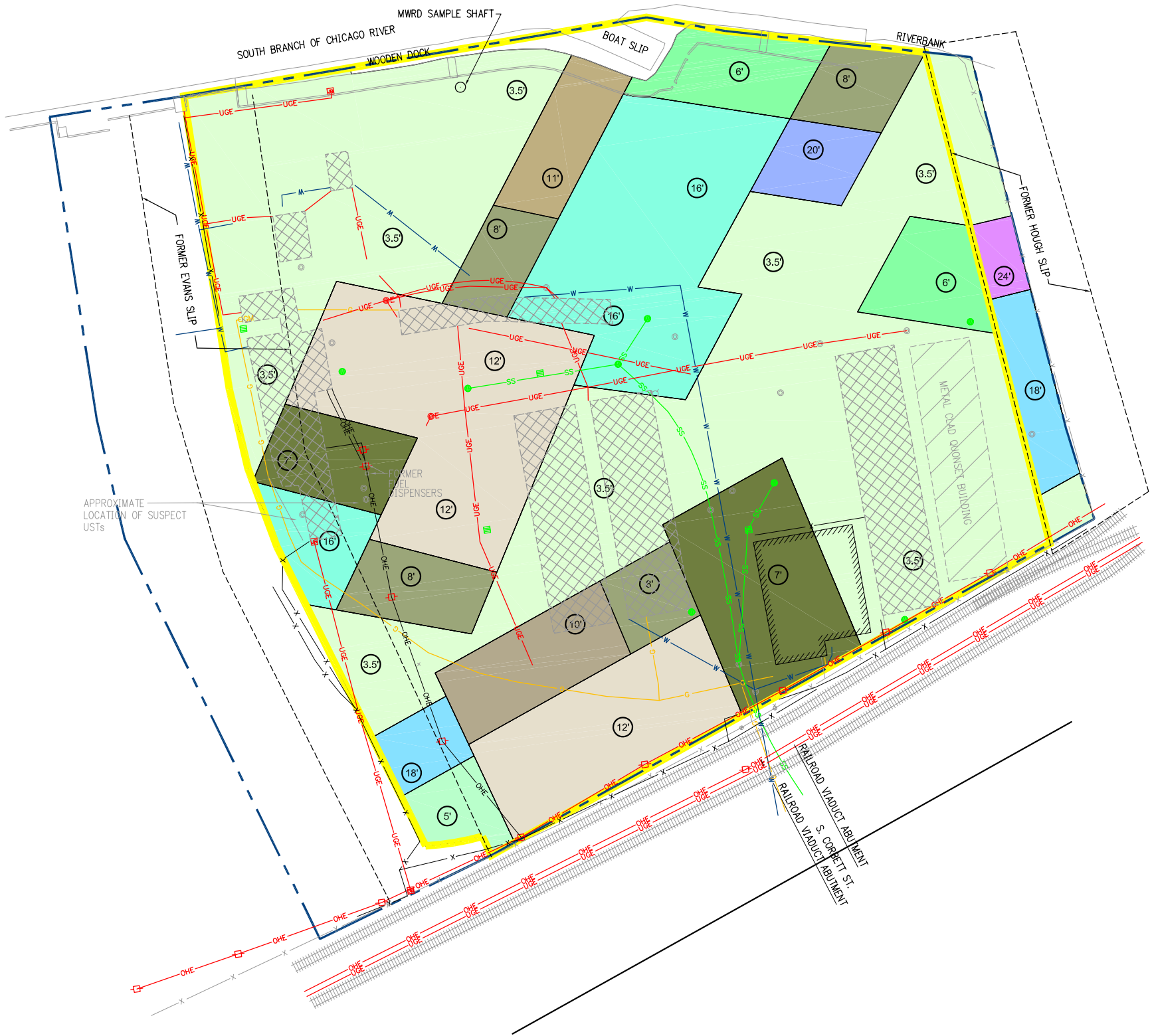
SITE LOCATION MAP
22ND STREET STATION SITE, HOUGH PLACE
STATION SITE, AND PITNEY COURT SITE
Chicago, Illinois
May 25, 2007

ATTACHMENT

**BURNS & MCDONNELL
SOIL CONFIRMATION GRID FIGURES
FROM REMEDIAL ACTION PLANS**

I:\PEOPLES GAS\22ND STREET-27634\CAD\BID\OR RAP 2007\SOIL EXCAVATION





LEGEND

- PROPERTY LINE
- APPROXIMATE FORMER MGP SITE BOUNDARY
- FENCE
- RAILROAD TRACKS
- GAS LINE - (SHUT-OFF)
- STORM SEWER LINE
- UNDERGROUND ELECTRICAL LINE (DE-ENERGIZED)
- OVERHEAD ELECTRICAL LINE(DE-ENERGIZED)
- WATER LINE - (SHUT OFF)
- STRUCTURE REMOVED AFTER 1978
- STRUCTURE REMOVED DECEMBER 2006
- MANHOLE
- POWER POLE
- EXCAVATION DEPTH TO 3.5' BELOW GROUND SURFACE
- EXCAVATION DEPTH TO 5' BELOW GROUND SURFACE
- EXCAVATION DEPTH TO 6' BELOW GROUND SURFACE
- EXCAVATION DEPTH TO 7' BELOW GROUND SURFACE
- EXCAVATION DEPTH TO 8' BELOW GROUND SURFACE
- EXCAVATION DEPTH TO 9' BELOW GROUND SURFACE
- EXCAVATION DEPTH TO 10' BELOW GROUND SURFACE
- EXCAVATION DEPTH TO 11' BELOW GROUND SURFACE
- EXCAVATION DEPTH TO 12' BELOW GROUND SURFACE
- EXCAVATION DEPTH TO 14' BELOW GROUND SURFACE
- EXCAVATION DEPTH TO 16' BELOW GROUND SURFACE
- EXCAVATION DEPTH TO 18' BELOW GROUND SURFACE
- EXCAVATION DEPTH TO 20' BELOW GROUND SURFACE
- EXCAVATION DEPTH TO 24' BELOW GROUND SURFACE
- EXCAVATION DEPTH IDENTIFICATION

NOTE:
LOCATIONS OF FORMER STRUCTURE ARE APPROXIMATE

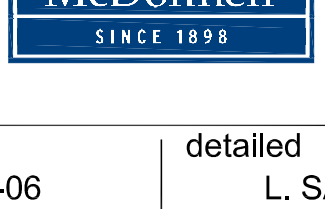



date	03-22-07	detailed	L. SAUCEDO
designed	M. RENAS	checked	M. KELLEY

THE PEOPLES GAS
LIGHT AND COKE COMPANY
CHICAGO, ILLINOIS

Figure 4 PROPOSED EXCAVATION MAP FORMER HOUGH PLACE STATION RAP			
project	27276	contract	
drawing		rev.	
sheet	of	sheets	
file	I:\PEOPLES GAS\HOUGH_27276\CAD\BIDS\RAP\EXCAVATION MAP 032107		



no.	date	by	ckd	description
				
date 08-24-06		detailed L. SAUCEDO		
designed		checked		
<p>THE PEOPLES GAS LIGHT AND COKE COMPANY CHICAGO, ILLINOIS</p> <p>PITNEY COURT 3052 SOUTH PITNEY COURT CHICAGO, ILLINOIS</p>				
<p>Figure 5 PRELIMINARY SOIL CONFIRMATION SAMPLE GRID RAP</p>				
project 27112		contract		
drawing		rev.		
				
sheet 5		of 5		sheets
file \\PEOPLES GAS\PITNEY COURT\...CAD\BID\RAP\OCTOBER 2006P CONFIRM SAMPLE MAP				